C-A OPERATIONS PROCEDURES MANUAL

4.44.1 Procedures for Reloading a PASS PLC Program from an EEPROM after Processor Memory Corruption

Text Pages 2 through 4

Hand Processed Changes

HPC No.	Date	Page Nos.	Initials

Revision No. 00

Approved: _____Signature on File_____ _____
Collider-Accelerator Department Chairman Date

T. Tallerico

4.44.1 Procedures for Reloading Processor Memory from an EEPROM after Processor Memory Corruption

1. Purpose

1.1 This document describes the steps required to reload PLC Processor memory from an EEPROM module (1785ME64 or equivalent) after Processor memory has become corrupted. This procedure covers the B-division hardware only. This procedure is written to allow an individual with only general PLC knowledge to reload PLC processor memory. Applicable to B Division PASS system in Building 921 Peers 3, 23 & 25.

2. Responsibilities

2.1 The Operations Coordinator or properly trained Operations Personnel shall contact the head of the Access Control Group prior to performing a manual reload (by cycling the power off and then on again).

2.2 The head of the Access Control Group shall inform the Radiation Safety Committee representative and the Chief Electrical Engineer that a manual download has been performed as soon as possible.

3. Prerequisites

3.1 Executing this procedure requires a general knowledge of the PASS system, including locations of processor key switches and rack power switches, and the location of checksum records – both on the EEPROM module and in the PLC processor memory or corresponding display.

3.2 The appropriate PASS PLC containing a programmed Allen-Bradley EEPROM module (catalog number 1785ME64).

4. Precautions

4.1 The PLC processor should NEVER be removed or installed without powering down the rack.

4.2 EEPROM modules should be handled in a manner that will minimize static electricity.

4.3 The development system shall not be attached to the system without prior permission of the Radiation Safety Committee.

4.4 Only one peer may be reloaded from EEPROM at a time. After each download the checksums should be verified against what was originally

loaded in RAM. Once the checksums agree, then another peer may be downloaded.

4.5 Only one reload shall be performed per day without being reviewed by the Radiation Safety Committee and Chief Electrical Engineer.

5. Procedure

5.1 Reloading Processor Memory from an EEPROM after Processor Memory Corruption.

5.2 A steady red **"PROC" LED** signifies that the program in RAM has become corrupted. This procedure will allow you to reload a backup copy of the program.

5.2.1 Verify the key switch on the front of the Processor is set to **"RUN".**

5.2.2 Note the checksum written on the left side of the EEPROM. Do not remove the EEPROM.

5.2.3 Turn the power off and then back on.

5.2.4 The program in the EEPROM module will automatically download into PLC memory.

5.2.5 Certify that the **"PROC" LED** on the front of the processor is a steady green after a few seconds.

5.2.6 Proceed to record the Checksum from a display monitor and make sure it compares with the last recorded reading and the checksum printed on the left side of the EEPROM.

6. Documentation

6.1 After each EEPROM download a note of the download shall be made in the trouble log and a note shall be sent to the Radiation Safety Committee and the Chief Electrical Engineer.

7. References

7.1 Allen Bradley publication 1785-5.10 September 1995 – Enhanced PLC-5 and Ethernet PLC-5 Programmable Controller Memory Module.

7.2 Allen Bradley publication 1785-2.7 October 1998 – PLC5 Programmable Controller Memory Modules.

8. Attachments

None.